

AMENDMENTS TO THE CLAIMS

1-32 (Canceled)

33. (Previously Presented) A phosphorylatable antibody or antigen binding fragment thereof, engineered to include at least one heterologous kinase recognition site located in the hinge region and which does not reduce the ability of the antibody or antigen binding fragment to bind antigen, such that an added phosphate group of a phosphorylated form of the antibody or antigen binding fragment is protected from hydrolysis by intramolecular interactions with other amino acid residues so that at least 80% of all the phosphate groups of the phosphorylated form remain attached in vitro after incubation for 5 days at 37 °C in either (i) human, mouse or fetal serum, or (ii) phosphate buffered saline with 5 mg/ml bovine serum albumin.

34. (Canceled)

35. (Previously Presented) The phosphorylatable antibody of claim 33, wherein at least 95% of all the phosphate groups remain attached in vitro after incubation for at least 5 days at 37 °C in either (i) human, mouse or fetal serum, or (ii) phosphate buffered saline with 5 mg/ml bovine serum albumin ~~of incubation of the phosphorylated form in animal serum or buffer.~~

36. (Previously Presented) The phosphorylatable antibody of claim 35, wherein at least 99% of all the phosphate groups remain attached in vitro after incubation for at least 5 days at 37 °C in either (i) human, mouse or fetal serum, or (ii) phosphate buffered saline with 5 mg/ml bovine serum albumin ~~of incubation of the phosphorylated form in animal serum or buffer.~~

37. (Previously Presented) The phosphorylatable antibody of claim 33, wherein the kinase recognition site is a recognition site for kinase which phosphorylates a serine, threonine or tyrosine residue.

38. (Previously Presented) The phosphorylatable antibody of claim 33, wherein the kinase recognition site is a recognition site for a cyclic AMP dependent kinase, a cyclic GMP dependent kinase, or a cyclic nucleotide independent kinase.
39. (Previously Presented) The phosphorylatable antibody of claim 33, wherein the kinase recognition site is a recognition site for casein kinase I, casein kinase II, Src tyrosine kinase, mitogen-activated S6 kinase or rhodopsin kinase.
40. (Previously Presented) The phosphorylatable antibody of claim 33, wherein the antibody is a monoclonal antibody.
41. (Previously Presented) The phosphorylatable antibody of claim 33, wherein the antibody is a humanized antibody, or chimeric antibody.
42. (Canceled)